



STIC Search Report

EIC 1700

STIC Database Tracking Number: 136785

TO: Helen Pezzuto
Location: REM 10A29
Art Unit : 1713
November 4, 2004

Case Serial Number: 10/650256

From: Kathleen Fuller
Location: EIC 1700
REMSEN 4B28
Phone: 571/272-2505
Kathleen.Fuller@uspto.gov

Search Notes

I searched only the broad structure of claim 1. If the claim 7 compound exists it would be found using this strategy. There were only 20 structures and 5 CA references, 2 of them to the applicants



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28



* Please Give Request To Mrs. K. Tucker. THANKS!

Access DB#

136785

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: HELEN PIZZUTO Examiner #: 70058 Date: 11/2/04
Art Unit: _____ Phone Number 30 _____ Serial Number: 10/650256
Mail Box and Bldg/Room Location: _____ Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Pat. & T.M. Office

Title of Invention: SEE ATTACHED

Inventors (please provide full names): _____

↓
Earliest Priority Filing Date: 2/22/02

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please Search:

- (1) compound defined in claim 1, more narrowly in claim 6
- (2) compound defined in claim 7, which is a combination of those in claim 1 and a "core" molecule. Species of "core" molecule are expressed in claim 12 and the species of claim 7 is expressed in claim 13.

THANKS!

STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>K. Fiedler</u>	NA Sequence (#) _____	STN <u>✓</u>
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) <u>1</u>	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: <u>11/4/05</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: <u>20</u>	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: <u>22</u>	Other _____	Other (specify) _____

=> file reg

FILE 'REGISTRY' ENTERED AT 11:35:30 ON 04 NOV 2004
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 2 NOV 2004 HIGHEST RN 774165-06-9
DICTIONARY FILE UPDATES: 2 NOV 2004 HIGHEST RN 774165-06-9

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 11:35:34 ON 04 NOV 2004
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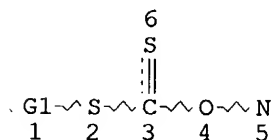
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FILE COVERS 1907 - 4 Nov 2004 VOL 141 ISS 19
FILE LAST UPDATED: 3 Nov 2004 (20041103/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d que

L5 STR



Claim 1
query

VAR G1=AK/CY

NODE ATTRIBUTES:

NSPEC IS RC AT 5
CONNECT IS E2 RC AT 2
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L7 20 SEA FILE=REGISTRY SSS FUL L5
L8 5 SEA FILE=HCAPLUS ABB=ON L7

=> d l8 bib abs ind hitstr 1-5

L8 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 2004:310873 HCAPLUS
DN 140:321927
TI Control agents for living-type free radical polymerization and methods of
polymerizing
IN Charmot, Dominique; Chang, Han-Ting; Nava-Salgado, Victor
PA Symyx Technologies, Inc., USA
SO U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S. Pat. Appl. 2003
204,034.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

applicant

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004073042	A1	20040415	US <u>2003-650256</u>	20030827
	US 2003204034	A1	20031030	US 2002-104740	20020322
	US 6667376	B2	20031223		
PRAI	US 2002-104740	A2	20020322		

OS MARPAT 140:321927
AB Control agents that have an oxygen-nitrogen bond covalently bonded to a
thiocarbonyl moiety are provided for living-type free radical polymerization
of a

wide variety of monomers, particularly vinyl monomers.
Et2NOC(:S)SCHMeCO2Et was prepared and used in polymerization of vinyl acetate.

IC ICM C07F009-02
ICS C07C337-00
NCL 546335000; 548571000; 558168000; 558234000
CC 35-4 (Chemistry of Synthetic High Polymers)
ST radical polymn control agent
IT 9003-20-7P, Vinyl acetate homopolymer 9003-39-8P, Vinyl pyrrolidone
homopolymer 9003-49-0P, Butyl acrylate homopolymer 9003-53-6P, Styrene
homopolymer 26246-91-3P, Vinyl dodecanoate homopolymer 72018-12-3P,
N-Vinyl formamide homopolymer
RL: IMF (Industrial manufacture); PREP (Preparation)
(control agents for living-type free radical polymerization and methods of
polymerizing)
IT 608523-08-6P 608523-10-0P 608523-11-1P
608523-12-2P 679417-66-4P 679417-67-5P
679417-68-6P 679417-69-7P 679417-70-0P
679417-71-1P 679417-72-2P

RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses)
(control agents for living-type free radical polymerization and methods of polymerizing)

IT 75-15-0, Carbon disulfide, reactions 535-11-5, Ethyl 2-bromo-propionate 3376-40-7, N-Benzyl-N-phenyl hydroxylamine 3710-84-7, Diethyl hydroxylamine 608523-09-7

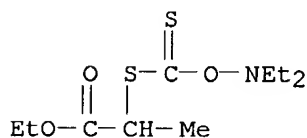
RL: RCT (Reactant); RACT (Reactant or reagent)
(control agents for living-type free radical polymerization and methods of polymerizing)

IT 608523-08-6P 608523-10-0P 608523-11-1P
608523-12-2P 679417-66-4P 679417-67-5P
679417-68-6P 679417-69-7P 679417-70-0P
679417-71-1P 679417-72-2P

RL: IMF (Industrial manufacture); NUU (Other use, unclassified); PREP (Preparation); USES (Uses)
(control agents for living-type free radical polymerization and methods of polymerizing)

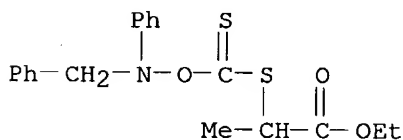
RN 608523-08-6 HCAPLUS

CN Propanoic acid, 2-[[[(diethylamino)oxy]thioxomethyl]thio]-, ethyl ester (9CI) (CA INDEX NAME)



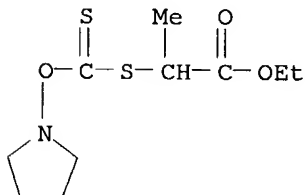
RN 608523-10-0 HCAPLUS

CN Propanoic acid, 2-[[[phenyl(phenylmethyl)amino]oxy]thioxomethyl]thio]-, ethyl ester (9CI) (CA INDEX NAME)



RN 608523-11-1 HCAPLUS

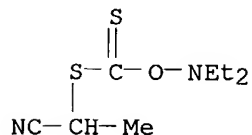
CN Propanoic acid, 2-[[[1-pyrrolidinyloxy]thioxomethyl]thio]-, ethyl ester (9CI) (CA INDEX NAME)



RN 608523-12-2 HCAPLUS

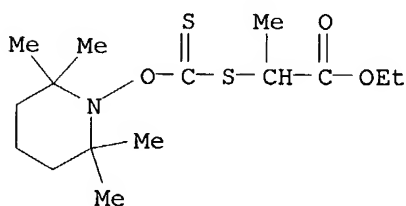
CN Propanenitrile, 2-[[[(diethylamino)oxy]thioxomethyl]thio]- (9CI) (CA

INDEX NAME)



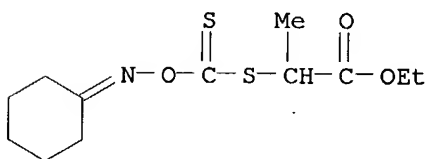
RN 679417-66-4 HCAPLUS

CN Propanoic acid, 2-[[[(2,2,6,6-tetramethyl-1-piperidinyloxy)thioxomethyl]thio]-, ethyl ester (9CI) (CA INDEX NAME)



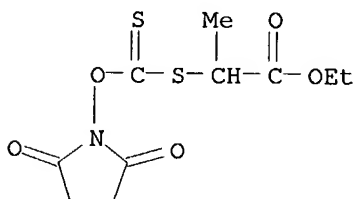
RN 679417-67-5 HCAPLUS

CN Propanoic acid, 2-[[[(cyclohexylideneamino)oxy]thioxomethyl]thio]-, ethyl ester (9CI) (CA INDEX NAME)



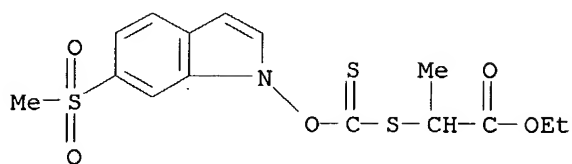
RN 679417-68-6 HCAPLUS

CN Propanoic acid, 2-[[[(2,5-dioxo-1-pyrrolidinyl)oxy]thioxomethyl]thio]-, ethyl ester (9CI) (CA INDEX NAME)



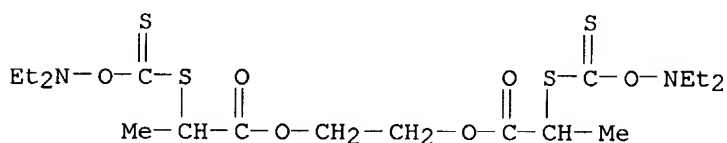
RN 679417-69-7 HCAPLUS

CN Propanoic acid, 2-[[[6-(methylsulfonyl)-1H-indol-1-yl]oxy]thioxomethyl]thio]-, ethyl ester (9CI) (CA INDEX NAME)



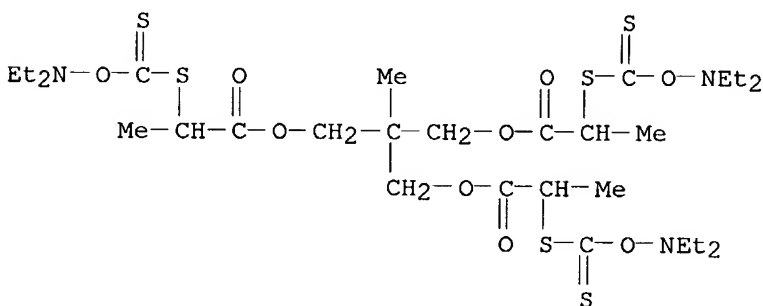
RN 679417-70-0 HCAPLUS

CN Propanoic acid, 2-[[[(diethylamino)oxy]thioxomethyl]thio]-, 1,2-ethanediyl ester (9CI) (CA INDEX NAME)



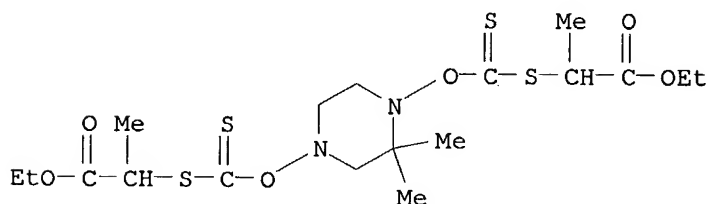
RN 679417-71-1 HCAPLUS

CN Propanoic acid, 2-[[[(diethylamino)oxy]thioxomethyl]thio]-, 2-(8-ethyl-4-methyl-3-oxo-6-thioxo-2,7-dioxo-5-thia-8-azadec-1-yl)-2-methyl-1,3-propanediyl ester (9CI) (CA INDEX NAME)



RN 679417-72-2 HCAPLUS

CN Propanoic acid, 2,2'-[(2,2-dimethyl-1,4-piperazinediyl)bis(oxycarbonothioylthio)]bis-, diethyl ester (9CI) (CA INDEX NAME)



L8 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:796756 HCAPLUS

DN 139:292658

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

TI Aminoxythiocarbonylthio derivatives used as control agents in living free radical polymerization
 IN Charmot, Dominique; Chang, Han-Ting; Jayaraman, Manikandan; Nava-Salgado, Victor
 PA Symyx Technologies, Inc., USA
 SO PCT Int. Appl., 50 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003082928	A1	20031009	WO 2003-US8473	20030319
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2003204034	A1	20031030	US 2002-104740	20020322
	US 6667376	B2	20031223		
PRAI	US 2002-104740	A	20020322		
OS	MARPAT 139:292658				

AB A process of free radical polymerization comprises (a) providing a mixture of one

or more monomers, at least one free radical source and a control agent having the general formula $R_1-S-C(S)-O-NR_2R_3$ (I), and (b) subjecting the mixture to polymerization conditions. In the formula (I), R_1 is any group that can

be expelled as a free radical in addition-fragmentation reaction; R_2 and R_3 are each independently selected from hydrogen, alkyl, substituted alkyl, heteroatom-containing alkyl, substituted heteroatom-containing alkyl, optionally

R_2 and R_3 are joined in a ring structure having 3-50 atoms in the ring backbone, and optionally R_2 and R_3 are joined to form a double bond, optionally a substituted alkenyl moiety. Thus, 2-(N,N-diethylaminoxythiocarbonylthio)propionic acid Et ester was produced and used as chain transfer agent in polymerization of vinyl acetate in the presence of AIBN. Poly(vinyl acetate) produced at 60° to the monomer conversion of 94% (45 h reaction time) had number-average mol. weight of 38,400 and polydispersity of 1.76.

IC ICM C08F002-38

ICS C07C329-16

CC 35-4 (Chemistry of Synthetic High Polymers)

ST aminoxythiocarbonylthio deriv chain transfer agent living radical polymn

IT Chain transfer agents

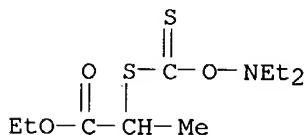
(aminoxythiocarbonylthio derivs. used as control agents in living free radical polymerization)

IT Polymerization

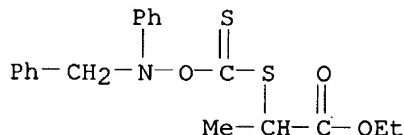
(living, radical; aminoxythiocarbonylthio derivs. used as control agents in living free radical polymerization)

IT 78-67-1, AIBN

- RL: CAT (Catalyst use); USES (Uses)
(aminoxythiocarbonylthio derivs. used as control agents in living free radical polymerization)
- IT 9003-20-7P, Poly(vinyl acetate) 9003-39-8P, Polyvinylpyrrolidone
9003-49-0P, Poly(butyl acrylate) 9003-53-6P, Polystyrene 26246-91-3P,
Poly(vinyl dodecanoate) 72018-12-3P, Polyvinylformamide
RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(aminoxythiocarbonylthio derivs. used as control agents in living free radical polymerization)
- IT 75-15-0, Carbon disulfide, reactions 535-11-5, Ethyl 2-bromopropionate
3376-40-7, N-Benzyl-N-phenylhydroxylamine 3710-84-7,
Diethylhydroxylamine 608523-09-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(aminoxythiocarbonylthio derivs. used as control agents in living free radical polymerization)
- IT 608523-08-6P 608523-10-0P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(control agent; aminoxythiocarbonylthio derivs. used as control agents in living free radical polymerization)
- IT 608523-11-1 608523-12-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(control agent; aminoxythiocarbonylthio derivs. used as control agents in living free radical polymerization)
- IT 608523-08-6P 608523-10-0P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(control agent; aminoxythiocarbonylthio derivs. used as control agents in living free radical polymerization)
- RN 608523-08-6 HCAPLUS
- CN Propanoic acid, 2-[[[(diethylamino)oxy]thioxomethyl]thio]-, ethyl ester
(9CI) (CA INDEX NAME)

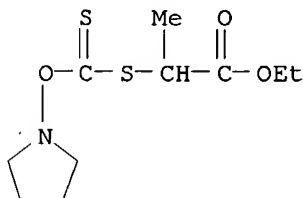


- RN 608523-10-0 HCAPLUS
- CN Propanoic acid, 2-[[[phenyl(phenylmethyl)amino]oxy]thioxomethyl]thio]-, ethyl ester (9CI) (CA INDEX NAME)



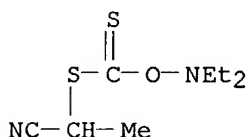
- IT 608523-11-1 608523-12-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(control agent; aminoxythiocarbonylthio derivs. used as control agents in living free radical polymerization)
- RN 608523-11-1 HCAPLUS

CN Propanoic acid, 2-[[[(1-pyrrolidinyloxy)thioxomethyl]thio]-, ethyl ester
(9CI) (CA INDEX NAME)



RN 608523-12-2 HCAPLUS

CN Propanenitrile, 2-[[[(diethylamino)oxy]thioxomethyl]thio]- (9CI) (CA INDEX NAME)



RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:800862 HCAPLUS
DN 132:151635
TI Generation and capture of iminyl radicals from ketoxime xanthates
AU Gagosz, Fabien; Zard, Samir Z.
CS Institut Chimie Substances Naturelles, Gif-sur-Yvette, F-91198, Fr.
SO Synlett (1999), (12), 1978-1980
CODEN: SYNLES; ISSN: 0936-5214
PB Georg Thieme Verlag
DT Journal
LA English
OS CASREACT 132:151635
AB Irradiation of ketoxime O-(S-Me xanthates) containing a γ,δ -double bound leads to a dihydropyrrole through cyclization of an intermediate iminyl radical in a radical chain reaction. The last propagation step involves transfer of a dithiocarbonate group, and various external radical traps can be incorporated into the medium, allowing access to a variety of substituted dihydropyrroles.
CC 27-10 (Heterocyclic Compounds (One Hetero Atom))
ST ketoxime xanthate iminyl radical generation cyclization; pyrrole hydro prepn
IT Ketoximes
RL: RCT (Reactant); RACT (Reactant or reagent)
(generation and cyclization of iminyl radicals from ketoxime xanthates)
IT Radicals, preparation
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(iminyl; generation and cyclization of iminyl radicals from ketoxime xanthates)
IT Cyclization

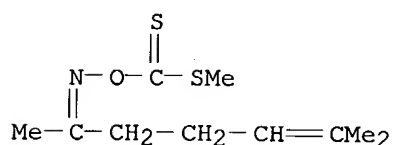
(radical; generation and cyclization of iminyl radicals from ketoxime xanthates)

IT 75-62-7 5535-48-8 22418-73-1 59239-04-2 59239-07-5
258333-65-2 258333-66-3 258333-67-4 258333-68-5
 258333-69-6 **258333-81-2**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (generation and cyclization of iminyl radicals from ketoxime xanthates)

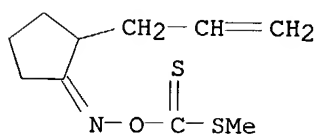
IT 258333-70-9P 258333-71-0P 258333-72-1P 258333-73-2P 258333-74-3P
 258333-75-4P 258333-76-5P 258333-77-6P 258333-78-7P 258333-79-8P
 258333-80-1P 258333-82-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (generation and cyclization of iminyl radicals from ketoxime xanthates)

IT **258333-65-2 258333-81-2**
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (generation and cyclization of iminyl radicals from ketoxime xanthates)

RN 258333-65-2 HCAPLUS
 CN 5-Hepten-2-one, 6-methyl-, O-[(methylthio)thioxomethyl]oxime (9CI) (CA INDEX NAME)



RN 258333-81-2 HCAPLUS
 CN Cyclopentanone, 2-(2-propenyl)-, O-[(methylthio)thioxomethyl]oxime (9CI)
 (CA INDEX NAME)



RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

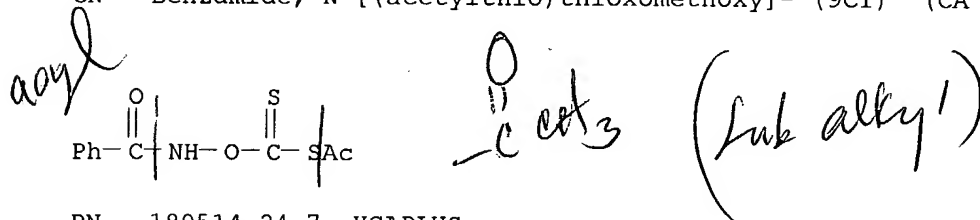
L8 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1997:244888 HCAPLUS
 DN 126:330231
 TI Polystyrene-supported hydroxamic dithiocarbonic anhydrides: a new class of acyl transfer reagents
 AU Sophiamma, P. N.; Sreekumar, K.
 CS Dep. of Chemistry, Univ. of Kerala, Thiruvananthapuram, 695 581, India
 SO Proceedings - Indian Academy of Sciences, Chemical Sciences (1997), 109(1), 49-59
 CODEN: PIAADM; ISSN: 0253-4134
 PB Indian Academy of Sciences
 DT Journal
 LA English
 OS CASREACT 126:330231
 AB Polystyrene-supported hydroxamic dithiocarbonic anhydrides were developed as a new class of regenerable solid phase reagents for acylating amino

- groups selectively. The reagent was prepared from crosslinked polystyrene support by a series of polymer analogous reactions. The crosslinking agents used were divinylbenzene (DVB) and ethylene glycol dimethacrylate (EGDMA). The reagents were found to transfer their acyl groups to amines in solution at room temperature, yielding a solution of the corresponding amides. The influence of solvent, temperature, molar ratio and duration of reaction were studied to find the optimum conditions. The spent reagent can be regenerated several times by a simple reaction, without significant loss in activity.
- CC 21-2 (General Organic Chemistry)
Section cross-reference(s): 35
- ST acylation amine polystyrene supported agent; hydroxamic dithiocarbonic anhydride acylation agent
- IT Acylation
Polymer-supported reagents
(acylation of amines by polystyrene-supported hydroxamic dithiocarbonic anhydrides)
- IT Amines, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of amines by polystyrene-supported hydroxamic dithiocarbonic anhydrides)
- IT 56-40-6, Glycine, reactions 62-53-3, Aniline, reactions 74-89-5, Methylamine, reactions 87-62-7, 2,6-Dimethylaniline 95-53-4, o-Toluidine, reactions 95-54-5, o-Aminoaniline, reactions 95-68-1, 2,4-Dimethylaniline 106-47-8, p-Chloroaniline, reactions 106-49-0, p-Toluidine, reactions 108-42-9 108-44-1, reactions 9003-70-7D, Polystyrene-divinylbenzene copolymer, chloromethylated 26376-90-9D, chloromethylated
RL: RCT (Reactant); RACT (Reactant or reagent)
(acylation of amines by polystyrene-supported hydroxamic dithiocarbonic anhydrides)
- IT 65-85-0DP, Benzoic acid, polymer-supported, preparation 93-89-0DP, Ethyl benzoate, polymer-supported 495-18-1DP, Benzohydroxamic acid, polymer-supported 552-16-9DP, o-Nitrobenzoic acid, polymer-supported 610-34-4DP, Ethyl o-nitrobenzoate, polymer-supported 612-23-7DP, polymer-supported 17512-68-4DP, polymer-supported 189514-21-4DP, polymer-supported 189514-22-5DP, polymer-supported **189514-23-6DP**, polymer-supported **189514-24-7DP**, polymer-supported **189514-25-8DP**, polymer-supported **189514-26-9DP**, polymer-supported **189514-27-0DP**, polymer-supported **189514-28-1DP**, polymer-supported
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(acylation of amines by polystyrene-supported hydroxamic dithiocarbonic anhydrides)
- IT 79-16-3P, N-Methylacetamide 93-98-1P, N-Benzoylaniline 103-84-4P, N-Acetylaniline 103-89-9P, N-Acetyl-p-toluidine 120-66-1P, N-Acetyl-o-toluidine 495-69-2P, N-Benzoylglycine 537-92-8P, N-Acetyl-m-toluidine 539-03-7P 543-24-8P, N-Acetylglycine 582-77-4P 582-78-5P 584-70-3P 588-07-8P 613-93-4P, N-Methylbenzamide 721-47-1P 2050-43-3P 2198-53-0P 2585-23-1P 2585-29-7P 2585-30-0P 2645-07-0P 2866-82-2P 3460-11-5P 6004-21-3P 6328-77-4P 6338-73-4P 6917-08-4P 18109-39-2P 34801-09-7P 36855-81-9P 56242-85-4P 64594-44-1P 109963-72-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(acylation of amines by polystyrene-supported hydroxamic dithiocarbonic anhydrides)

IT 189514-23-6DP, polymer-supported 189514-24-7DP,
polymer-supported 189514-25-8DP, polymer-supported
189514-26-9DP, polymer-supported 189514-27-0DP,
polymer-supported 189514-28-1DP, polymer-supported
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(acylation of amines by polystyrene-supported hydroxamic dithiocarbonic
anhydrides)

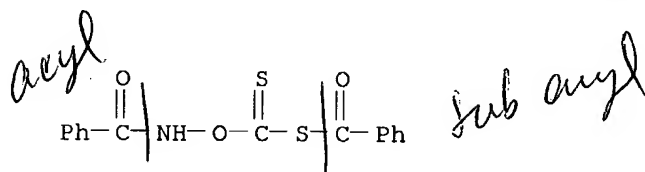
RN 189514-23-6 HCAPLUS

CN Benzamide, N-[(acetylthio)thioxomethoxy]- (9CI) (CA INDEX NAME)



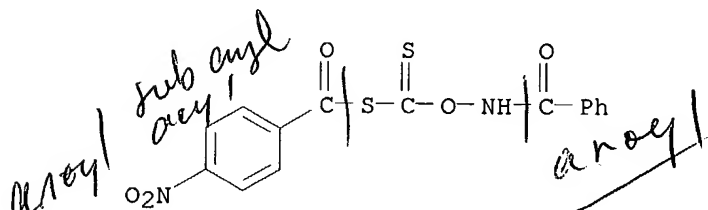
RN 189514-24-7 HCAPLUS

CN Benzamide, N-[(benzoylthio)thioxomethoxy]- (9CI) (CA INDEX NAME)



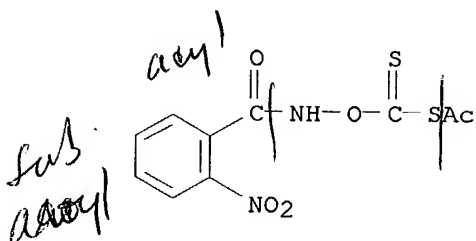
RN 189514-25-8 HCAPLUS

CN Benzamide, N-[[[(4-nitrobenzoyl)thio]thioxomethoxy]- (9CI) (CA INDEX NAME)



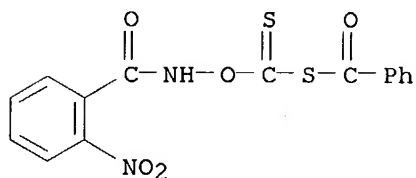
RN 189514-26-9 HCAPLUS

CN Benzamide, N-[(acetylthio)thioxomethoxy]-2-nitro- (9CI) (CA INDEX NAME)

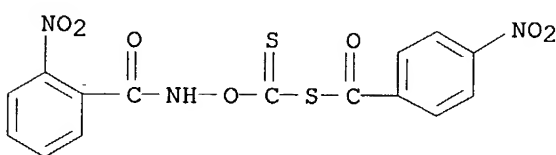


RN 189514-27-0 HCAPLUS

CN Benzamide, N-[(benzoylthio)thioxomethoxy]-2-nitro- (9CI) (CA INDEX NAME)



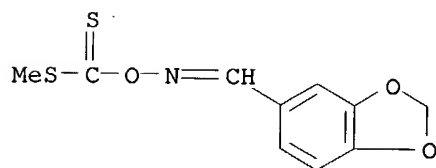
RN 189514-28-1 HCAPLUS
 CN Benzamide, 2-nitro-N-[[(4-nitrobenzoyl)thio]thioxomethoxy]- (9CI) (CA INDEX NAME)



RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2004 ACS on STN
 AN 1991:408224 HCAPLUS
 DN 115:8224
 TI Microwave activation in organic synthesis: an efficient one-pot synthesis of nitriles from aldehydes
 AU Villemin, Didier; Lalaoui, Mekki; Ben Alloum, Abdelkrim
 CS ISMRA, Ec. Natl. Super. Ing., Caen, 14050, Fr.
 SO Chemistry & Industry (London, United Kingdom) (1991), (5), 176
 CODEN: CHINAG; ISSN: 0009-3068
 DT Journal
 LA English
 OS CASREACT 115:8224
 AB An efficient one-pot synthesis of nitriles from aldehydes is reported. RCHO (R = Ph, substituted Ph, octyl, phenylethenyl, 5-norbornen-2-yl) is converted to adsorbed oximate by reaction with hydroxyamine hydrochloride and KF on alumina under microwave activation and without solvent. The adsorbed oximate is converted to be nitrile by treatment with CS₂ at room temperature
 CC 25-20 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 23, 27
 ST aldehyde conversion nitrile microwave activation; nitrile
 IT Nitriles, preparation
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of, from aldehydes under microwave activation)
 IT 5453-80-5 5896-17-3, 2-Benzyloxybenzaldehyde
 RL: PROC (Process)
 (conversion of, to nitrile)
 IT 100-52-7, Benzaldehyde, reactions 104-55-2 120-14-9,
 3,4-Dimethoxybenzaldehyde 120-57-0, 1,3-Benzodioxole-5-carboxaldehyde
 124-19-6, Nonanal 623-30-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (conversion of, to nitrile)
 IT **134168-16-4P**
 RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)
IT 95-11-4P, Bicyclo[2.2.1]hept-5-ene-2-carbonitrile 100-47-0P,
Benzonitrile, preparation 2024-83-1P 2243-27-8P, Nonanenitrile
4360-47-8P 4421-09-4P, 1,3-Benzodioxole-5-carbonitrile 7187-01-1P
74511-44-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, from aldehyde)
IT **134168-16-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 134168-16-4 HCAPLUS
CN 1,3-Benzodioxole-5-carboxaldehyde, O-[(methylthio)thioxomethyl]oxime (9CI)
(CA INDEX NAME)



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